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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,793	11/02/2001	Axel K. Kloth	2001 P 16199 US	3205

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EXAMINER

BLOUNT, STEVEN

ART UNIT PAPER NUMBER

2661

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/052,793	KLOTH, AXEL K.	
	Examiner	Art Unit	
	Steven Blount	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2005 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 2, 5, 8, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicants admitted prior art (AAPA) in view of U.S. patent 6,691,206 to Rubenstein.

With regard to claim 1, AAPA teaches, starting on page 1 lines 10+ of the specification, using lookup tables in routers to lookup ports, said routing tables being stored in DRAM. AAPA also identifies a problem existing in the prior art wherein this routine introduces excessive unwanted latency. AAPA does not however teach a solution to this problem to comprise using both DRAM and SRAM in the lookup table.

This is taught in Rubenstein. See col 7 lines 3+:

“This problem can be addressed through the selective use of SRAM cells in DRAM array... The use of SRAM cells in part of the DRAM array can be especially useful in telecom applications such as a router, where the format of the data, e.g. packet size, is predetermined and fixed”.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have solved the problem existing in the prior art comprising latency in DRAM based router memories as stated in the AAPA, in light of the teachings of

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Rubenstein, in order to provide a method of routing data at speeds which make the said routers efficient and economical to use.

With regard to claim 2, 5, 8, 9, see the rejection above.

3. Claims 3, 4, 6, 7, 10, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicants admitted prior art (AAPA) in view of U.S. patent 6,691,206 to Rubenstein as applied to claims 1 – 2, 5, 8, 9, and 12 above, and further in view of U.S. patent 6,154,746 to Berchtold et al.

AAPA/Rubenstein teach the invention as discussed above, but do not teach searching using bisection or binary search trees. This is taught in Berchtold et al. See col 15 lines 15+ and col 1 lines 30+.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have searched the data of AAPA/Rubenstein using binary search and bisection in light of the teachings of Berchtold in order to provide one more method for speeding up the search of the data.

4. Claims 12 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicants admitted prior art (AAPA) in view of U.S. patent 6,691,206 to Rubenstein as applied above to claims 1 – 2, 5, 8, 9, and further in view of U.S. patent 5,875,117 to Jones et al.

AAPA/Rubenstein teach the invention as described above, but do not teach a SRAM cache. Jones et al teaches a SRAM cache in a similar overall system. See col 12 lines 10+.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided AAPA/Rubenstein with a SRAM cache in light of the teachings of Jones et al in order to provide a faster data response to a router request.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the applicants admitted prior art (AAPA) in view of U.S. patent 6,691,206 to Rubenstein as applied above to claims 1 – 2, 5, 8, 9, and U.S. patent 5,875,117 to Jones et al as applied to claim 14 above, and further in view of U.S. patent 6,154,746 to Berchtold et al.

AAPA/Rubenstein/Jones et al teach the invention as described above, but do not teach the use of a bisection search. This is taught in Berchtold et al, as described above.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the bisection method in AAPA/Rubenstein/Jones et al in light of the teachings of Berchtold in order to provide a faster search method.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Blount whose telephone number is 703-305-0319. The examiner can normally be reached on M-F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Chau Nguyen, can be reached on 571 – 272 - 3071. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ajit Patel
Primary Examiner

SB



9/28/05